

EEEEEEEEE	DDDDDDDDDD	TTTTTTTTTT
EEEEEEEEE	DDDDDDDDDD	TTTTTTTTTT
EEEEEEEEE	DDDDDDDDDD	TTTTTTTTTT
EEE	DDD	TTT
EEEEEEEEE	DDDDDDDDDD	TTT
EEEEEEEEE	DDDDDDDDDD	TTT
EEEEEEEEE	DDDDDDDDDD	TTT

\*\*FILE\*\*ID\*\*SCRINSERT

E 2

EDTS  
V04-

; Ro

; 1

SSSSSSSS SSSSSSSS CCCCCCCC CCCCCCCC RRRRRRRR RRRRRRRR IIIIII NN NN SSSSSSSS EEEEEEEE RRRRRRRR TTTTTTTTT  
SS SSSSSSSS CC CC RR RR IIIIII NN NN SS SSSSSSS EEEEEEEE RRRRRRRR RR RR TT  
SS SSSSSSSS CC CC RR RR IIIIII NNNN NN SS EEEEEE RRRRRRRR RR RR TT  
SS SSSSSSSS CC CC RR RR IIIIII NN NN NN SS EEEEEE RRRRRRRR RR RR TT  
SS SSSSSSSS CC CC RRRRRRRR RRRRRRRR IIIIII NN NN NN SSSSSS EEEEEE RRRRRRRR RRRRRRRR TT  
SS SSSSSSSS CC CC RR RR IIIIII NN NN NN SS EE RRR RR TT  
SS SSSSSSSS CC CC RR RR IIIIII NN NN NN SS EE RRR RR TT  
SS SSSSSSSS CC CC RR RR IIIIII NN NN NN SS EE RRR RR TT  
SS SSSSSSSS CCCCCCCC RR RR IIIIII NN NN SSSSSSS EEEEEEEE RRR RR TT  
SS SSSSSSSS CCCCCCCC RR RR IIIIII NN NN SSSSSSS EEEEEEEE RRR RR TT

LL IIIIII SSSSSSSS  
LL IIIIII SSSSSSSS  
LL IIIIII SS SS  
LLLLLLLLLL IIIIII SSSSSSSS  
LLLLLLLLLL IIIIII SSSSSSSS

```
0001 0 XTITLE 'EDT$SCRINSERT - insert a line on the screen'
0002 0 MODULE EDT$SCRINSERT (
0003 0           IDENT = 'VO4-000'
0004 0           ) =
0005 1 BEGIN
0006 1
0007 1 ****
0008 1   *
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0025 1   * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0026 1   *
0027 1   *
0028 1 ****
0029 1
0030 1
0031 1 ++
0032 1 FACILITY: EDT -- The DEC Standard Editor
0033 1
0034 1 ABSTRACT:
0035 1
0036 1 This module updates the screen information vector to
0037 1 reflect the insertion of a line.
0038 1
0039 1 ENVIRONMENT: Runs at any access mode - AST reentrant
0040 1
0041 1 AUTHOR: Bob Kushlis, CREATION DATE: September 8, 1979
0042 1
0043 1 MODIFIED BY:
0044 1
0045 1 1-001 - Original. DJS 12-Feb-1981. This module was created by
0046 1 extracting the routine EDT$$SC_INSLN from module SCREEN.
0047 1 1-002 - Regularize headers. JBS 13-Mar-1981
0048 1 1-003 - Repaint when a line is inserted above the top of the screen,
0049 1 but not when a line is inserted at the top of the screen.
0050 1 JBS 24-Sep-1981
0051 1 1-004 - Check a new flag for scrolling regions. JBS 31-Aug-1982
0052 1 1-005 - Modify for the new screen updater. SMB 17-Sep-1982
0053 1 1-006 - Modify to use new 48 bit macros. STS 01-Oct-1982
0054 1 1-007 - Take out references to L CUR SCRLN. SMB 04-Oct-1982
0055 1 1-008 - Reduce parameters to SC [NINS. SMB 06-Oct-1982
0056 1 1-009 - Change the way SC_FNDREC is used. SMB 08-Oct-1982
0057 1 ! 1-010 - Change EDT$$G_SCR_CHGD to EDT$$G_SCR_REBUILD. JBS 09-Oct-1982
```

EDT\$SCRINSERT  
VO4-000

EDT\$SCRINSERT - insert a line on the screen

G 2  
16-Sep-1984 01:35:13  
14-Sep-1984 12:24:29  
VAX-11 Bliss-32 v4.0-742  
[EDT.SRC]SCRINSERT.BLI;1

Page 2  
(1)

\*\*FI

58 0058 1 | 1-011 - Set the current screen pointer when a line is inserted. SMB 10-Oct-1982  
59 0059 1 | 1-012 - Add support for NOTRUNCATE mode. JBS 11-Oct-1982  
60 0060 1 | 1-013 - Update L\_CUR\_SCRLN on insert. SMB 13-Oct-1982  
61 0061 1 | 1-014 - Don't rebuild the screen after deleting a line. JBS 23-Oct-1982  
62 0062 1 | 1-015 - Don't increment the record number if our record was replaced  
63 0063 1 | rather than inserted before. JBS 25-Oct-1982  
64 0064 1 | 1-016 - Check for replacing a multi-line record. JBS 26-Oct-1982  
65 0065 1 | 1-017 - Fix nottruncate bug on searching for deleted lines. SMB 02-Dec-1982  
66 0066 1 | 1-018 - Remove the edit buffer. JBS 27-Dec-1982  
67 0067 1 | 1-019 - Remove the unused reference to EDT\$SG\_CS.CHNO. JBS 27-Dec-1982  
68 0068 1 | 1-020 - Support EDT\$SG\_ANY CHANGES. JBS 05-Apr-1983  
69 0069 1 | 1-021 - Worry about replacing the current line when the cursor is on  
70 0070 1 | a continuation line of it. JBS 06-Jul-1983  
71 0071 1 | 1-022 - Maintain EDT\$SL\_CUR\_SCRLN even if the current line is outside of  
72 0072 1 | the screen data base. JBS 25-Jul-1983  
73 0073 1 | --  
74 0074 1 |

```
76      0075 1 %SBTTL 'Declarations'  
77      0076 1  
78      0077 1 TABLE OF CONTENTS:  
79      0078 1  
80      0079 1  
81      0080 1 REQUIRE 'EDTSRC:TRAROUNAM';  
82      0519 1  
83      0520 1 FORWARD ROUTINE  
84      0521 1   EDTSSC_INSLN : NOVALUE;  
85      0522 1  
86      0523 1  
87      0524 1 INCLUDE FILES:  
88      0525 1  
89      0526 1  
90      0527 1 REQUIRE 'EDTSRC:EDTREQ';  
91      0662 1  
92      0663 1  
93      0664 1 MACROS:  
94      0665 1  
95      0666 1   NONE  
96      0667 1  
97      0668 1 OWN STORAGE:  
98      0669 1  
99      0670 1   NONE  
100     0671 1  
101     0672 1 EXTERNAL REFERENCES:  
102     0673 1  
103     0674 1   In the routine
```

```

105    0675 1 %SBTTL 'EDT$$$C_INSLN - mark a line for insert'
106    0676 1
107    0677 1 GLOBAL ROUTINE EDT$$$C_INSLN (
108    0678 1     REC_ADDR,
109    0679 1     REC_LEN
110    0680 1     ) : NOVALUE =
111    0681 1
112    0682 1 ++
113    0683 1 FUNCTIONAL DESCRIPTION:
114    0684 1
115    0685 1     A line has been inserted.  Mark the line for insert in the screen
116    0686 1     information structure.
117    0687 1
118    0688 1 FORMAL PARAMETERS:
119    0689 1
120    0690 1     REC_ADDR          the address of the new line
121    0691 1
122    0692 1     REC_LEN           the length of the new line
123    0693 1
124    0694 1 IMPLICIT INPUTS:
125    0695 1
126    0696 1     EDTSSA_LN_PTR
127    0697 1     EDTSSST_LN_BUF
128    0698 1     EDTSSA_SCR_BUF
129    0699 1     EDTSSA_CUR_BUF
130    0700 1
131    0701 1 IMPLICIT OUTPUTS:
132    0702 1
133    0703 1     EDTSSL_CUR_SCRNL
134    0704 1     EDTSSA_CSR_SCRPTR
135    0705 1     EDTSSG_ANY_CHANGES
136    0706 1
137    0707 1 ROUTINE VALUE:
138    0708 1
139    0709 1     NONE
140    0710 1
141    0711 1 SIDE EFFECTS:
142    0712 1
143    0713 1     NONE
144    0714 1
145    0715 1 --
146    0716 1
147    0717 2 BEGIN
148    0718 2
149    0719 2 EXTERNAL ROUTINE
150    0720 2     EDT$$$C_LNINS,
151    0721 2     EDT$$$C_FNDREC;
152    0722 2
153    0723 2 EXTERNAL
154    0724 2     EDTSSA_LN_PTR,
155    0725 2     EDTSSL_CUR_SCRNL : LN_BLOCK,
156    0726 2     EDTSSST_LN_BUF,
157    0727 2     EDTSSA_CSR_SCRPTR : REF SCREEN_LINE,
158    0728 2     EDTSSA_SCR_BUF : REF TBCB_BLOCK,
159    0729 2     EDTSSA_CUR_BUF : REF TBCB_BLOCK,
160    0730 2     EDTSSG_ANY_CHANGES;
161    0731 2
                                         ! Insert a line into sceen structure
                                         ! Find a record in the data structure
                                         ! Current screen line
                                         ! Workfile line buffer
                                         ! Pointer to current line screen info
                                         ! Current screen block
                                         ! Current text buffer control block'
                                         ! 1 = a change has been mode to the screen data structure

```

```
162    0732 2 LOCAL
163    0733 2   CURSOR_LINE,
164    0734 2   CURSOR_POS,
165    0735 2   SCRPTR : REF SCREEN_LINE,
166    0736 2   CURSOR_DELETED,
167    0737 2   DISP,
168    0738 2   SCRLN_POS;
169    0739
170    0740
171    0741 2 | Only perform this routine if the current buffer is on the screen and the screen data structure exists.
172    0742 2 |-
173    0743
174    0744 2 | IF (.EDT$$A_SCR_BUF NEQA .EDT$$A_CUR_BUF) THEN RETURN;
175    0745
176    0746 2 |+
177    0747 2 | Compute our position relative to the screen line.
178    0748 2 |-
179    0749 2 |   SCRLN_POS = CMPLNO (EDT$$A_CUR_BUF [TBCB_CUR_LIN], EDT$$L_CUR_SCRLN);
180    0750 2 |+
181    0751 2 | Get the pointer which corresponds to the current record. The insert will be just
182    0752 2 | before that record.
183    0753 2 |-
184    0754 2 |   SCRPTR = EDT$$SC_FNDREC (.EDT$$A_LN_PTR - EDT$$T_LN_BUF, DISP);
185    0755 2 |+
186    0756 2 | We will do the insert above the current screen information block.
187    0757 2 | If there is a deleted line before the current screen information block
188    0758 2 | we will replace it. If that line is the cursor line, don't increment
189    0759 2 | the record number of the cursor line.
190    0760
191    0761
192    0762 3 | IF (.SCRPTR NEQA 0)
193    0763 3 | THEN
194    0764 3 | BEGIN
195    0765 3 |+
196    0766 3 | Tell the screen updater to search the screen data structure for any changes.
197    0767 3 |-
198    0768 3 |   EDT$$G_ANY_CHANGES = 1;
199    0769 3 |+
200    0770 3 | See if the cursor line has already been deleted.
201    0771 3 |-
202    0772
203    0773 4 | IF ((.EDT$$A_CSR_SCRPTR [SCR_EDIT_FLAGS] AND SCR_EDIT_DELLN) NEQ 0)
204    0774 4 | THEN
205    0775 4 |   CURSOR_DELETED = 1
206    0776 4 | ELSE
207    0777 4 |   CURSOR_DELETED = 0;
208    0778
209    0779
210    0780 4 | Now insert just before the current line.
211    0781 4 |-
212    0782 4 |   EDT$$SC_LNINS (.SCRPTR, .REC_ADDR, .REC_LEN);
213    0783 4 |+
214    0784 4 | If we just replaced the current screen line, don't increment it's record number.
215    0785 4 |-
216    0786 4 |+
217    0787 4 | IF ( NOT (.CURSOR_DELETED AND ((.EDT$$A_CSR_SCRPTR [SCR_EDIT_FLAGS] AND SCR_EDIT_DELLN) EQ 0)))
218    0788 3 | THEN
```

EDT\$SCRINSERT  
V04-000

EDT\$SCRINSERT - insert a line on the screen  
EDT\$\$\$C\_INSLN - mark a line for insert

K 2  
16-Sep-1984 01:35:13  
14-Sep-1984 12:24:29  
VAX-11 Bliss-32 V4.0-742  
[EDT.SRC]SCRINSERT.BLI;1

Page 6  
(3)

EDT\$  
V04-

```
219    0789 4      BEGIN
220    0790 4
221    0791 4      IF (.SCRLN_POS LEQ 0) THEN ADDLINE (NUMBER_ONE, EDT$$L_CUR_SCRLN);
222    0792 4
223    0793 4      END;
224    0794 4
225    0795 2      END
226    0796 2      ELSE
227    0797 1      !+ If the line to be inserted is in the buffer being displayed on the screen but outside
228    0798 2      the screen data base we must still maintain EDT$$L_CUR_SCRLN.
229    0799 1      !-
230    0800 2      BEGIN
231    0801 2
232    0802 2
233    0803 3      IF (.SCRLN_POS LEQ 0) THEN ADDLINE (NUMBER_ONE, EDT$$L_CUR_SCRLN);
234    0804 3
235    0805 2      END;
236    0806 2
237    0807 1      END;
```

! of routine EDT\$\$\$C\_INSLN

.TITLE EDT\$SCRINSERT EDT\$SCRINSERT - insert a line on  
the screen  
.IDENT \V04-000\

.EXTRN EDT\$\$\$C\_LNINS, EDT\$\$\$C\_FNDREC  
.EXTRN EDT\$\$A\_LN\_PTR, EDT\$\$L\_CUR\_SCRLN  
.EXTRN EDT\$\$ST\_LN\_BUF, EDT\$\$A\_CSR\_SCRPTR  
.EXTRN EDT\$\$A\_SCR\_BUF, EDT\$\$A\_CUR\_BUF  
.EXTRN EDT\$\$G\_ANY\_CHANGES

.PSECT \_EDT\$CODE,NOWRT, SHR, PIC.2

.ENTRY EDT\$\$\$C\_INSLN, Save R2,R3,R4,R5

MOVAB EDT\$\$A\_CSR\_SCRPTR, R5

MOVAB HIGH 2, R4

SUBL2 #4, SP

MOVL EDT\$\$A\_CUR\_BUF, R0

CMPL EDT\$\$A\_SCR\_BUF, R0

BNEQ 10\$

MOVZWL HIGH 2, R1

CMPW 10(R0), R1

BLSSU 1\$

BNEQ 3\$

MOVL LOW 2, R1

CMPL 6(R0), R1

BGEQU 2\$

MNEGL #1, R2

BRB 4\$

BNEQ 3\$

CLRL R2

BRB 4\$

MOVL #1, R2

PUSHL SP

MOVAB EDT\$\$ST\_LN\_BUF, R0

SUBL3 R0, EDT\$\$A\_LN\_PTR, -(SP)

CALLS #2, EDT\$\$\$C\_FNDREC

0677

0744

0749

: Ro

: 1

0754

55 00000000G	00	003C 00000
54 00000000G	00	9E 00002
5E	04	C2 00010
50 00000000G	00	D0 00013
50 00000000G	00	D1 0001A
	7D	12 00021
51	64	3C 00023
51	OA	A0 B1 00026
	OC	1F 0002A
	15	12 0002C
51	FC	A4 D0 0002E
51	06	A0 D1 00032
	05	1E 00036
52	01	CE 00038 1\$:
	09	11 0003B
	04	12 0003D 2\$:
52	D4	0003F
	03	11 00041
52	01	D0 00043 3\$:
	5E	DD 00046 4\$:
7E 00000000G	00	50 000048
00000000G	00	50 C3 0004F
	02	FB 00057

MOVAB	EDT\$\$A_CSR_SCRPTR, R5	0677
MOVAB	HIGH 2, R4	
SUBL2	#4, SP	
MOVL	EDT\$\$A_CUR_BUF, R0	0744
CMPL	EDT\$\$A_SCR_BUF, R0	
BNEQ	10\$	
MOVZWL	HIGH 2, R1	
CMPW	10(R0), R1	0749
BLSSU	1\$	
BNEQ	3\$	
MOVL	LOW 2, R1	
CMPL	6(R0), R1	
BGEQU	2\$	
MNEGL	#1, R2	
BRB	4\$	
BNEQ	3\$	
CLRL	R2	
BRB	4\$	
MOVL	#1, R2	
PUSHL	SP	
MOVAB	EDT\$\$ST_LN_BUF, R0	
SUBL3	R0, EDT\$\$A_LN_PTR, -(SP)	
CALLS	#2, EDT\$\$\$C_FNDREC	0754

EDT\$SCRINSERT  
VO4-000

EDT\$SCRINSERT - insert a line on the screen  
EDT\$\$SC\_INSLN - mark a line for insert

L 2  
16-Sep-1984 01:35:13  
14-Sep-1984 12:24:29  
VAX-11 Bliss-32 V4.0-742  
[EDT.SRC]SCRINSERT.BLI;1

Page 7  
(3)

EDT\$  
VO4-

			50	D5 0005E	TSTL	SCRPTR	
			33	13 00060	BEQL	8\$	0762
			01	D0 00062	MOVL	#1, EDT\$\$G_ANY CHANGES	0768
			65	D0 00069	MOVL	EDTSSA_CSR-SCRPTR, R1	0773
05	OD	A1	02	E1 0006C	BBC	#2, 13TR1), 5\$	0775
			01	D0 00071	MOVL	#1, CURSOR_DELETED	
			02	11 00074	BRB	6\$	
			53	D4 00076	5\$: CLR	CURSOR_DELETED	0777
			AC	7D 00078	6\$: MOVQ	REC_ADDR, -(SP)	0782
			50	DD 0007C	PUSHL	SCRPTR	
			03	FB 0007E	CALLS	#3, EDT\$\$SC_LNINS	
			53	E9 00085	BLBC	CURSOR_DELETED, 7\$	0787
10	OD	A0	65	D0 00088	MOVL	EDTSSA_CSR-SCRPTR, R0	
			02	E1 0008B	BBC	#2, 13TR0), 10\$	
			52	D5 00090	7\$: TSTL	SCRLN_POS	0791
			05	15 00092	BLEQ	9\$	
			04	00094	RET		
			52	D5 00095	8\$: TSTL	SCRLN_POS	0803
			07	14 00097	BGTR	10\$	
			FC	A4 D6 00099	9\$: INCL	FIRST_LWORD	
			02	12 0009C	BNEQ	10\$	
			64	B6 0009E	INCW	NEXT_WORD	
			04	000A0	10\$: RET		0807

; Routine Size: 161 bytes, Routine Base: \_EDT\$CODE + 0000

: 238 0808 1  
: 239 0809 1 !<BLF/PAGE>

: Si  
: RU  
: EL  
: Li  
: Le  
: Me  
: Co

EDT\$SCRINSERT  
VO4-000 EDT\$SCRINSERT - insert a line on the screen  
EDT\$\$SC\_INSLN - mark a line for insert

M 2  
16-Sep-1984 01:35:13 VAX-11 Bliss-32 V4.0-742  
14-Sep-1984 12:24:29 [EDT.SRC]SCRINSERT.BLI;1

Page 8  
(4)

: 241 0810 1 END  
: 242 0811 1  
: 243 0812 0 ELUDOM

! of module EDT\$SCRINSERT

#### PSECT SUMMARY

Name	Bytes	Attributes
_EDT\$CODE	161	NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

#### Library Statistics

File	----- Total	Symbols Loaded	----- Percent	Pages Mapped	Processing Time
\$255\$DUA28:[EDT.SRC]EDT.L32;1	377	44	11 50	40 7	00:00.2 00:00.1
\$255\$DUA28:[EDT.SRC]PSECTS.L32;1	2	1			

#### COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACEBACK/LIS=LIS\$:SCRINSERT/OBJ=OBJ\$:SCRINSERT MSRC\$:SCRINSERT.BLI/UPDATE=(ENH\$:  
CRINSERT)

Size: 161 code + 0 data bytes

Run Time: 00:15.2

Elapsed Time: 00:19.9

Lines/CPU Min: 3205

Lexemes/CPU-Min: 12635

Memory Used: 114 pages

Compilation Complete

0139 AH-BT13A-SE  
VAX/VMS V4.0

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